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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/765,802      | 01/19/2001  | Stephan Doliov       | 9623/314            | 9158             |

7590 09/07/2004  
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| EXAMINER |
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PARDO, THUY N

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2175     |              |

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/765,802

Applicant(s)

DOLIOV, STEPHAN

Examiner

Thuy Pardo

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 January 2001 and 14 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,8,13,14,21-23 and 30-34 is/are rejected.
- 7) ☒ Claim(s) 2-7,9-12,15-20,24-29 and 35-43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2, 5, 6, 7, 8</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. Applicant's Application filed on January 19, 2001 has been reviewed.
2. Claims 1-43 are presented for examination.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 8, and 31-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. (Hereinafter "Johnson") US Patent No. 5,345,595.

As to claim 1, Johnson teaches the invention substantially as claimed, comprising:  
collecting data from user interactions on a network, the data including aggregate measure data and unique feature data about the presumed user [subscriber's historical pattern usage and subscriber's ID, col. 3, lines 25;

storing the data in a database [stored in the event database for each particular subscriber ID, col. 11, lines 38-45; col. 12, lines 30-37];

building predictive models with the aggregate measure and unique feature data [such as: average and threshold events including daily velocity, daily international velocity, five-day average velocity...etc, col. 9, lines 26-43] to identify illegitimate

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interactions in the database using the predictive models [303-321 of fig. 3A; col. 12, lines 30-37].

As to claim 31, all limitations of this claim have been addressed in the analysis above, and this claim is rejected on that basis.

As to claim 8, Johnson teaches the invention substantially as claimed. Johnson further teaches creating a database of illegitimate interactions [fig. 8].

As to claim 32, Johnson teaches the invention substantially as claimed. Johnson further teaches identifying illegitimate interactions on the network.

As to claims 33 and 34, all limitations of this claim have been addressed in the analysis above, and this claim is rejected on that basis.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 13, 14, 21-23, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (Hereinafter "Johnson") US Patent No. 5,345,595, in view of Dan et al. (Hereinafter "Dan") US Patent No. 6,519,627.

As to claim 13, Johnson teaches the invention substantially as claimed as specified in claim 1 above. However, Johnson does not explicitly teach creating reports according to website interactions after determining the validity of the website interactions and removing the undesirable interactions from the reports. Dan teaches creating reports according to website interactions after determining the validity of the website interactions [processing transactions via World Wide Web and sending to the user a failure notice or a confirmation of transaction success, col. 10, lines 60 to col. 11, lines 17] and removing the undesirable interactions from the reports [rejects the transaction, col. 11, lines 10-17]. Therefore, it would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to add the feature of Johnson to the system of Dan in which the method of identifying illegitimate interactions is applied in the World Wide Web system as an essential means to increase the flexibility of applying the method of identifying illegitimate interactions in different communication systems.

As to claim 22, all limitations of this claim have been addressed in the analysis above, and this claim is rejected on that basis.

As to claims 14 and 23, Johnson and Dan teach the invention substantially as claimed. Johnson further teaches applying statistical data analysis techniques to identify

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undesirable interactions with the website before removing the undesirable interactions from the reports [fig. 8; appendix B, lines 47-52].

As to claims 21 and 30, Johnson and Dan teach the invention substantially as claimed, with the exception that the predictive model is biased in favor of a customer. However, this is just a matter of a design choice.

***Allowable Subject Matter***

Claims 2-7, 9-12, 15-20, 24-29, and 35-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 2, the feature of applying a mathematical model of interactions derived from at least one probabilistic approach; applying a mathematical model of interactions based on at least one stochastic approach; and determining the legitimacy of the interactions using the stochastic and probabilistic mathematical equations, taken together with other limitations of claim 1 was not disclosed by the prior art of record.

Claims 3-6 being further limiting to claim 1 are also objected to.

As to claim 7, the feature of evaluating multiple network interactions; creating a classification table; and determining a model of legitimate and illegitimate interactions from the classification table, taken together with other limitations of claim 1 was not disclosed by the prior art of record.

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As to claim 9, the feature of evaluating the database to ensure that the probabilistic and stochastic derived mathematical models of interactions are reliable; and discarding unreliable probabilistic and stochastic mathematical models of interaction, taken together with other limitations of claim 1 was not disclosed by the prior art of record.

Claim 10 being further limiting to claim 9 are also objected to.

As to claims 11 and 42, the feature of collecting data on a number of clicks per internet protocol address for a given time period; collecting data on a number of unique queries per user session; collecting data on a number of network clicks for a given time period; and collecting data on a number of distinct referral partners who could access the network, taken together with other limitations of claims 1 or 31 was not disclosed by the prior art of record.

As to claims 12 and 43, the feature of collecting data on an origin of the presumed user; collecting data on a time of the interactions; collecting data on a type of the interactions; and collecting data on presumed measures of uniqueness of the presumed user, taken together with other limitations of claims 1 or 31 was not disclosed by the prior art of record.

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As to claims 15 and 24, the feature that the statistical data analysis is used to create predictive models of undesirable interactions, taken together with other limitations of claims 13-14 or claims 22-23 was not disclosed by the prior art of record.

Claims 16-20 and 25-29 being further limiting to claims 15 and 24 are also objected to.

As to claim 35, the feature of applying a probabilistic approach to mathematical modeling of the interactions; applying a stochastic approach to derive mathematical modeling of the interactions; identifying interactions on the network using the probabilistic and stochastic mathematical models of interaction, taken together with other limitations of claim 31 was not disclosed by the prior art of record.

Claims 36-41 being further limiting to claim 35 are also objected to.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy Pardo, whose telephone number is (703) 305-1091. The examiner can normally be reached Monday through Thursday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830. The fax phone number for the organization where this application or proceeding is assigned are as follows:

(703) 872-9306 (Official Communication)

and/or:



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(703) 746-5616 (*Use this Fax#, only after approval by Examiner, for "INFORMAL" or "Draft" communication. Examiner may request that a formal/amendment be faxed directly to then on occasions*).

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

**6. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-5359, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

September 01, 2004



**THUY N. PARDO**  
**PRIMARY EXAMINER**